Work Order Tuesday, August 2				*10		, LOS	Page 1			
Revision ID:	D2002-017	7	,	Accept	*N900	004010	10 *	Setup Start	ולימו	
Start Date: 8 Required Date: 8 Reference:	3/20/2013 3/23/2013	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item Customer:		r-			
	Process Pla	n: MF	Date: 3-8-3 Date:		·	Date:		Run Start Stop	"NR1"	
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Too! # Pla	_	t Reject Qty	Reject Insp. Number Stamp	
Draw Nbr	Rev	ision Nbr	· + ·		<u></u>					
D2002	Rev	В								
*110 *110* Waterjet FLOW CNC Waterjet		HAAS CNG VERTICA Memo CUT AS P DWG REV FOLIO RE	ER DWG	0.00			4	0	Jm B.c	18·92
*120 *120* QC Quality Control		QC2- inspect parts off i	machine FAI/FAIB	0.00			_4_			8- 3 3
¹³⁰ *130*		QC8- Inspect parts - sec	cond check	0.00 DAS 27 9-85	9		Ψ			
QC Quality Control		Memo		0.00 Po.	8-33		. }		······································	

Quality Control

		DQA:	Date:	
JCR: Ves / No	WORK ORDER NON-CONFORMANCE / UPDATE	·		

NCR: Y	res	/ No				WORK ORDER NON-C	.Ur	VFURI	VIANCE / UP	DATE	QA Closed:	Dat	e:
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	 .
Part N	- - No.			· ·		Rework Scrap Use-as-is Work Order Update	Machining Small Fall Thermoforming Finishin			Crosstube Small Fab Finishing Composite	Pro Rec/Sto	Engineering Quality Other	
Root					Descri	ription of work order update		nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	[,	or Non-conf <u>ormance</u>	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved							3 3 5 5 5 2 3						
	_						AUL	T CATE	GORY				<u> </u>
Landir	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion			General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration			Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other		
1	Turning Sequence				i	Finish		Out of Sequence					

Outside Dimensions

<

Wave/Twist in Tube

Folio

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Work Order ID 105831 Tuesday, August 20, 2013 1:51:47 PM Item ID: D2002-017 Accept *N900040100* Setup Start Revision ID: Item Name: Plate *4* Start Qty: 4.00 Start Date: 8/20/2013 Cust Item ID: Required Date: 8/23/2013 Req'd Qty: 4.00 **Customer:** Reference: Run Process Plan: Approvals: Date:_____ Tooling: Date: ____ Stop SPC (Y/N): Date: Date:_____ Sequence ID/ Operation Set Up/ Toe! ID Tool # Plan Reject Accept Reject Work Center ID Description **Run Hours** Qty Code Qty Number 140 Chemical Conversion Coat per QSI005 4.1 0.00 *140* 16,13-8:22 HandFinish 0.00 Memo Hand Finishing 150 QC5 Inspect part completeness to step on W/O 0.00 *150* 13820 OC 0.00 Memo Quality Control

160

160 Powdercoat

Powder Coating

Black Sandtex(Ref:4.3.5.7) per OSI005 4.3

0.00

Powdercoat

Memo START TIME: OVENTEMPERATURE: FINISH TIME:

1XX m-/13/08/2

m17338

Page 2

Insp.

Stainp

DQA:	Date:	
_		

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

	,										QA Closed:	Date	2:
Work Orde	. .					DISPOSITION			-	AGAINST DE	PARTMENT	PROCESS	
Part N	o					Rework Skid-tube Machining Work Order Update Large Fab			Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root	Т				Descri	ption of work order update		nitial	Ac	tion	Sign &	, -	
Cause		Date	Step	Qty		or Non-conformance		ief Eng		ription	Date	Verification	QC Inspector
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1		ending			<u></u>	Bend	-	Grain		<u> </u>	Ovalized		Pressure/Forced
į	→ .	entre No	t Concer	itric to (o/s	BOM/Route	Ш	Hardwa			Over/Under	-	Temperature/Cure
į.		racks			<u> </u>	Broken/Damaged .	Ш		ion Incomplete		Part Incorred	<u> </u>	Weld
ļ	Crushed/Crimped Burrs				-}	Ш	i	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
	Cuffs Contamination				Щ	Mainte		<u> </u>	Part Moved				
-	Heat Treat Countersink					Mislabe		<u> </u>	Positioned V	· ·	¬		
-	_	rspection		Tube	L	Cut Too Short		Misread	i .		Power Loss/:	Surge	Other
	Ripples in Bend Drill Holes				\vdash	Offset							
1	Torque Waves in Extrusion Drawing				\vdash	Out of Calibration							
Ļ	Turning Sequence Finish				Out of Sequence								
1	Wave/Twist in Tube Folio				Folio		Outside	Dimensions					

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			DQA:	Date:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE	_	

		•									QA Closed:	Date	2:
Work Orde	∍r·					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
Part N	•					Rework Scrap		Skid-tube Crosstube Machining Small Fab			-	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR N	10.					Use-as-is Work Order Update						Supplier	
Root					Descri	ption of work order update	1	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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Equip/Tooling													
Operator													
Material													
Setup				}									
Other					•								
Process													
Supplier													
Training													
Unapproved													
							AUL	T CATE	GORY				
Landi	ng (Gear				General		_			_	_	_
<u> </u>		Bending				Bend		Grain			Ovalized	<u></u>	Pressure/Forced
		Centre No	ot Conce	ntric to	0/5	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Г	Cracks				Broken/Damaged		Inspect	ion Incomplete	L	Part Incorre	ct _	Weld
		Crushed/	Crimped			Burrs		Instruct	tions Incomplete/	'Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance		Part Moved		
		Heat Trea	et			Countersink		Mislabe	eled		Positioned V	Vrong	_
		Inspectio	n Strip in	Tube		Cut Too Short		Misrea	d		Power Loss/	Surge	Other
		Ripples in	n Bend			Drill Holes		Offset					
	Torque Waves in Extrusion Drawing					Out of Calibration							
1	Turning Sequence Finish					Out of Sequence							
		Wave/Tw	ve/Twist in Tube Folio					Outside	Dimensions				

 $\sigma = e_{\alpha_0}$

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Picklist Print

Tuesday, August 20, 2013 1:51:47 PM

Work Order ID:

105831

Parent Item:

D2002-017

Parent Item Name:

Plate

Start Date: 8/20/2013

Required Date: 8/23/2013

Page 1

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP E00.05.18Added inspection level 8, removed P/O for powder coatingEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq 1D	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet	 - · · · · · · · ·	Purchased	No	· <u></u> -	 -	100	sf	412.1789	0.1111	_0.4677895 OS		J	, প্রত্তিত্ত
				<u>lacation</u>		Loc Oty	Lo	c Code					
				MAT022		412,1789							
				119	916	0.2							
				121	197	21.34							
				123	096	11.4							
				123	654	11.64							
				123	701	32,7039							
				125	341	89.44							
				125	636	245,455			12<	<u></u>			

			DQA:	Date:	
	·				
JCR.	Ves / No	WORK ORDER NON-CONFORMANCE / UPDATE			

WORK ORDER	NON-CONFORMANCE	/ UPDATE
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										QA Ciosea.	Ua	<u></u>	
Work Orde	er:				DISPOSITION			<u> </u>	AGAINST DE	PARTMENT	/PROCESS		
***************************************					Rework	7 1	S	kid-tube	Crosstube		Water Jet	Engineering	
Part N	ln.				Scrap	┨	Machining Small Fab			Prod. Eng. Coor. Quality			
,		• • •			Use-as-is	 		oforming	Finishing	_	re/Packaging	— '—	
NCR N	lo.				Work Order Update	1 ^		arge Fab	Composite		Supplier		
		-		<u> </u>	· -	-		• 🗀					
Root				Descri	ption of work order update	Initi	Initial Action		ction	Sign &			
Cause	Date	Step	Qty	(or Non-conformance	Chief	Eng	Desc	cription	Date	Verificatio	n QC Inspector	
Doc/Data								·					
Equip/Tooling		l											
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Landi	ng Gear				General				_	-			
	Bending			L	Bend	Gr	ain			Ovalized		Pressure/Forced ·	
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	Cracks				Broken/Damaged	Ins	pectio	n incomplete		Part Incorre	ct	Weld	
	Crushed/	Crimped			Burrs	lns	structio	ons Incomplete,	/Unclear	Part Lost/Mi	issing	Wrong Stock Pulled	
	Cuffs				Contamination	Ма	ainten	ance	L	Part Moved			
	Heat Treat				Countersink	Mi:	islabele	ed	L	Positioned V	Vrong		
	Inspectio	n Strip in	Tube		Cut Too Short	Mi	isread			Power Loss/	Surge	Other	
				Drill Holes	Off	fset							
	Torque V	Vaves in E	extrusion		Drawing	Out of Calibration							
	Turning Sequence Finish			Finish	Out of Sequence								
	Wave/Twist in Tube Folio				Folio	lou	itside (Dimensions					

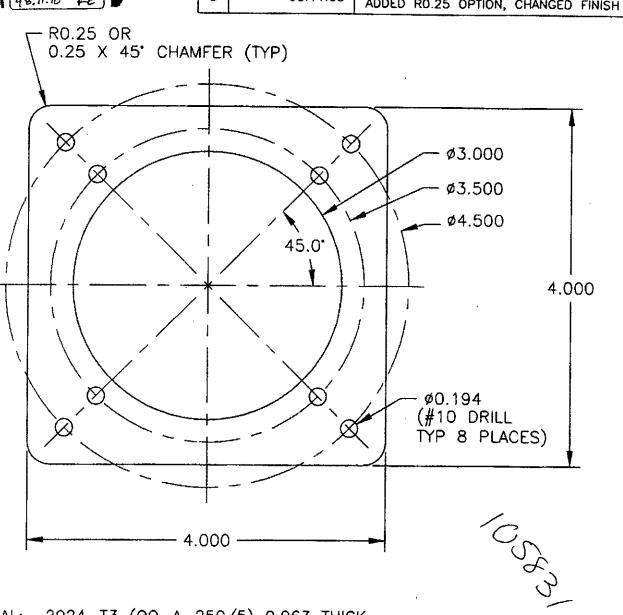
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DESIGN	DRAWN BY	DART AEROSPACE LTD						
JB	\mathcal{L}'	HAWKESBURY, ONTARID, CANADA						
CHECKED	APPROVED	DRAWING NO. REV. 6						
KE	HE	D2002-017 SHEET 1 OF						
DATE		TITLE SCALE						
 98.11.03		PLATE 1:						
Α	90.02.27	NEW ISSUE						
В	98.11.03	REDRAWN ON SEPARATE SHEET						

RELEASED 48.11.10 KE



MATERIAL: 2024-T3 (QQ-A-250/5) 0.063 THICK FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1

POWDER COAT BLACK CRINKLE (REF 4.3.5.3) PER DART QSI 005 4.3

TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED

NCR .	Yes	1	Nα	

NCR: Ye	es / No				WORK ORDER NON-CONFORMANCE / UPDATE								
								<u>. </u>	QA Closed:	Dat	e: 、		
Work Orde	r:		<u> </u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No	0				Scrap Mad		Skid-tube Crosstube Machining Small Fab nermoforming Finishing			Water Jet Engineeri Prod. Eng. Coor. Qual Rec/Store/Packaging Oth			
NCR N	o				Work Order Update Large Fab Composite				Supplier				
Root				Descri	ption of work order update In		Initial Action		Sign &				
Cause	Date	Step	Qty	,	or Non-conformance	Chief Er	g Desc	cription	Date	Verification	QC Inspector		
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						AULT CA	TEGORY						
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	Bending				Bend	Grain		⊣ ⊢		Pressure/Forced			
ļ	Centre No	ot Conce	ntric to	o/s	BOM/Route	\longrightarrow	Hardware		Over/Under tolerance		Temperature/Cure		
-	Cracks			<u> </u>	Broken/Damaged	—	Inspection Incomplete		Part Incorrect		Weld		
-	Crushed/Crimped			<u> </u>	Burrs		actions Incomplete,	Part Lost/Missing Wrong Stock Pulled					
	Cuffs			<u> </u>	Contamination	\vdash	ntenance	<u> </u>	Part Moved				
L	Heat Treat			<u> </u>	Countersink	\vdash	Mislabeled			Positioned Wrong			
Ļ	Inspection Strip in Tube			<u> </u>	Cut Too Short	\vdash	Misread			Surge	Other		
1	Ripples in Bend			<u> </u>	Drill Holes	Offse							
Ļ	Torque W			n L	Drawing	-	of Calibration		_		<u> </u>		
į	Turning S	equence			Finish	h	of Sequence				· · · · · · · · · · · · · · · · · · ·		
Į	Wave/Twist in Tube				Folio	Outs	de Dimensions						

Date: ,

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DART AEROSPACE LTD	Work Order:	105827		
Description: Plate	Part Number:	D2002-017		
Inspection Dwg: D2002-017 Rev: B		Page 1 of 1		

Inspection Dwg	g: D2002-017	Rev: B					Page 1 of 1			
	FIRS	ST ARTICLE	INSPEC [*]	TION CH	ECKLIST					
		X First Ar	_		totype					
Drawing Dimension	Tolerance		Accept	Reject	Method o		omments			
4.000			_		V	Then	10.1			
Ø3.000	+/-0.005	3.001	_		V	- J' \ '				
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Ø4.500	+/-0.005	4.503'	-		V					
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Ø0.194	+0.005/-0.000	0.194	-	***	, i		, <u> </u>			
				 						
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			DAS							
27										
Measured by:	In	Audited by:		Prototype		Approval: N/A				
Date:	B-08.32	Date:	1380			Date:	N/A			
Rev Date	Change					Revised b	y Approved			
A 05.04.21	New Issue					KJ/JLM 🗻				

										DQA:	Date:			
NCR: Yes	s / No				WORK ORDER NON-	VORK ORDER NON-CONFORMANCE / UPDATE					Date:	•		
										QA Closed:	Date.			
Work Order:					DISPOSITION		AGAINST DEPARTMENT/PROCESS							
WORK Order.	-	<u> </u>			Rework		Skid-tube Crosstube			Water Jet		Engineering		
Part No.	•				Scrap				Pro	d. Eng. Coor.	Quality			
					Use-as-is					Rec/Store/Packaging		Other		
NCR No.	·				Work Order Update	er Update Large Fab Composite				Í	Supplier			
Root				Descri	ption of work order update	\top	Initial	Ac	tion	Sign &		·		
Cause	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data														
Equip/Tooling														
Operator	4													
Material	_	İ]										
Setup	_													
Other														
Process	-			<u></u>										
Supplier Training	-{										:			
Unapproved	-											:		
			1	1		FAUL	LT ĆATE	GORY			1			
Landing	Gear				General									
ا آ	Rending				Rend		Grain			Ovalized		Pressure/Forced		

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Broken/Damaged

Over/Under tolerance

Part Incorrect Part Lost/Missing

Part Moved Positioned Wrong

Power Loss/Surge

Temperature/Cure

Wrong Stock Pulled

Weld

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

⁻ H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G